

MAGNESOL[®] U-180 MAGNESOL[®] UN-180

Properties

Magnesol[®] U-180 has the following characteristics:

- thermal index of 180°C,
- heat resistance particularly with respect to cut-through and heat shock,
- good solderability at 390°C, and excellent solderability at 410°C,
- good chemical resistance

Insulation

Magnesol[®] U-180 is a solderable polyurethane enameled copper wire.

Application

Magnesol[®] U-180 is recommended for the following applications:

- connection without stripping,
- automatic connection in solder bath at 390°C,
- automatic process,
- use of twisting devices,
- special thermal resistance
- thermal stress after winding,
- productivity

Main uses are found in relays, transformer, television and car components micro motors and low range motors.

Production range

The standards are:

Diameter : 0.02 to 1 mm

Thickness : Grade 1, Grade 2 and Grade 3 on request.

Color : natural

This product can be ordered with a polyamide overcoat under the trademark:

Magnesol[®] U-180 which is specially adapted for high speed process (NEMA MW83, IEC 603 17-55).

Characteristics

Magnesol[®] U-180 fulfills the requirements of the following specifications:

IEC 603 17-51

NEMA MW82

Magnesol[®] U-180 has an official approval by UL, class 180.

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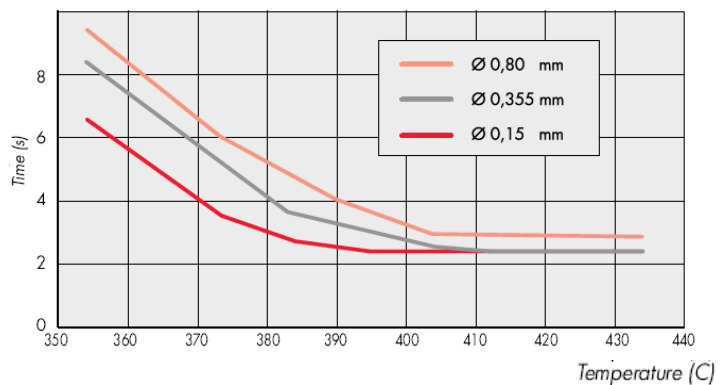
MAGNESOL[®] U-180

Valeurs typiques d'un fil Magnisol[®] U-180 mesurées selon les normes CEI 60 851	Typical values for a Magnisol[®] U-180 sample according to IEC 60 851 standards	
Diamètre du conducteur Diamètre sur émail Isolation de base	0,450 0,483 Polyuréthane	Conductor Diameter Overall Diameter Basecoat
Principales caractéristiques		Main characteristics
Indice de température	180°C	Thermal index
Durée de vie de 5000 h à	200°C	5000 h life test
Choc thermique	200°C	Heat shock
Thermoplasticité	250°C	Cut through temperature
Tension de claquage	≥ 1,5 IEC values	Breakdown voltage
Flexibilité	15 % + 1 diam.	Flexibility
Tangente Delta	≥ 160°C	Tangente Delta
Resistance aux agents chimiques	Good	Chemical resistance
Résistance à l'abrasion	≥ 1,5 IEC values	Resistance to abrasion
Soudabilité	390°C, 3 sec.	Soderability

These values are for information only.

**Typical values from a
Magnisol[®] U-180 sample, Grade 1.**

Examples of solderability times according to the temperature. Method IEC 60 – 851



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Thermal endurance graph- Temperature index

MAGNESOL[®] U-180, without impregnation
Nominal diameter 0,400 mm
Increase in diameter
due to the insulation 0,034 mm
Test voltage 400 V

